United States Department of Agriculture

Animal and Plant Health Inspection Service

National Wildlife Research Center

Wildlife Services Seeking Solutions Through Research

Selective Identification and Removal of Dominant Coyotes to Reduce Livestock Predation

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National Wildlife Research Center Scientists Study Coyote Behavior for Livestock Protection Answers

Wildlife Services' (WS) National Wildlife Research Center (NWRC) is the only Federal research facility devoted exclusively to resolving conflicts created by the interaction of wildlife and people through the development of effective, selective, and acceptable methods, tools, and techniques. The Dye Creek Preserve near Red Bluff, California is a natural habitat for coyotes that provides an effective location for NWRC research on the territorial and vocalization behavior of coyotes.

The goal of this project is to develop effective, environmentally responsible, and socially acceptable strategies for reducing livestock depredation. Predators, primarily coyotes, cause significant losses among domestic livestock and pose a serious economic liability to many agricultural enterprises. Although these depredations are concentrated in western states, risks to domestic stock extend through the contiguous 48 states.

Growing public sentiment against the use of lethal methods of predator management and restrictions on the use of chemical methods, together with more stringent requirements associated with maintaining current chemical registrations, point to the need for a greater emphasis in developing alternative methods or strategies of predator management. To accomplish this, a better understanding is needed of both the circumstances which lead to depredations and of the characteristics of those predators most likely to attack domestic stock.

Groups Affected By These Problems:

Ranchers/livestock producers

Applying Science and Expertise to Wildlife Challenges

Selective Removal—From past research, NWRC scientists have determined that selective identification and removal of territorially-dominant members of coyote packs reduces predation on flocks of sheep. The current research will continue to identify new methods to manage specific coyotes at various times and study the results.

Coyote Howling—This research is developing the capacity to record, broadcast, and analyze coyote vocalizations. Howling is a means of communication for coyotes and determining the time of night, time of year, and location that coyotes most often howl may provide insight into the behavior patterns of adult coyotes.

Major Research Accomplishments:

WS developed methods to identify territorial dominant coyotes

WS developed broadcast calling methods to attract territorial dominant coyotes

Selected Publications:

Sacks, B.N., K.M. Blejwas and M.M. Jaeger. 1999. Relative Vulnerability of Coyotes to Removal Methods on a Northern California Ranch. *Journal of Wildlife Management* 63(3):939-949.

Sacks, B.N., M.M. Jaeger, J.C. Neale and D.R. McCullough. 1999. Territoriality and Breeding Status of Coyotes Relative to Sheep Predation. *Journal of Wildlife Management* 63(2):593-605.